

Exhibit B

NOTICE OF REGULAR MEETING
OF THE
WEBER-MORGAN AIR QUALITY ADVISORY COMMITTEE
AGENDA

Public notice is hereby given that the Weber-Morgan Air Quality Advisory Committee will hold its regular meeting at the Weber-Morgan Health Department, 477 23rd Street, Ogden, Utah, commencing at 10:00 a.m. on Wednesday, February 10, 2016

The agenda for the meeting will consist of the following:

1. Approval of Minutes of December 09, 2015 Brandon Bexell
2. Committee Elections: Brandon Bexell
3. Presentation – DAQ Perspectives on Ozone, Diesel and Wood Burning: Joe Thomas
4. Discussion – Department Air Quality Strategy Brian Bennion/Brian Cowan
5. Other Business..... Brandon Bexell

**Weber-Morgan Health Department
Air Quality Advisory Committee
Minutes of Meeting
February 10, 2016**

A meeting of the Air Quality Advisory Committee was held February 10, 2016 at 10:00 a.m. at the Weber-Morgan Health Department. The meeting was called to order by Brandon Bexell.

Committee Members Present:

Iain Hueton
Rusty Spinden
Brandon Bexell
Craig Butters
Skyler Liston
Marion Horna
Jennifer Bodine
Bill Self
Veronica French
Kevin Lott

Staff Members Present:

Pedro Lozano
Nan Rogers
Elaine Wendt
Brian Bennion
Josh Miller
Lou Cooper
Brian Cowan
Lori Buttars
JoAnn Wengreen
Scott Braeden

Committee Members Excused:

Robert Nunn
Rick Gerber
David Chaffee

Committee Members Absent:

Jerry Paskett

Others In Attendance:

Marc Gaynor - APPLUS Technologies
Dave Holmstrom - Board of Health
Mat Carlile - DAQ
Joel Karmazyn - DAQ
Sheila Vance - DAQ
Leia Larsen - Standard Examiner
Chris Crockett - Weber Co. Attorney

Approval of Minutes of December 09, 2015 -

Motion Passes

Brandon Bexell

A **MOTION** is made by **Veronica French** and **SECONDED** by **Marion Horna** to approve the minutes as written.

Committee Elections - Brandon Bexell

Information/Motion Passes

A **MOTION** is made by **Brandon Bexell** and **SECONDED** by **Rusty Spinden** to nominate Robert Nunn as Chair. A vote is taken and the **MOTION** passes unanimously. Iain Hueton and Kevin Lott volunteer to serve as Vice-chair. A vote is taken and Iain Hueton will serve as Vice-chair.

Diesel and Wood Burning: Mat Carlile**Presentation – DAQ Perspectives on Ozone, Information Only**

Lou Cooper excuses Joe Thomas representing the DAQ who is unable to attend today's meeting. He introduces Mat Carlile who will be giving the Mobile Source section of the presentation, Joel Karmazyn as giving the Area Source portion and Sheila Vance who will be answering questions concerning the ozone. **Mat Carlile** hands out information concerning diesel emission contribution to air pollution in Weber County and states it takes approximately three years to compile the information, so the most current data is from 2011. This is an annual emission inventory including winter, spring, summer and fall since emission testing is performed year round giving a better perspective. Utah has problems with PM2.5 and ozone which are the pollutants to pay particular attention to. **Kevin Lott** questions if the numbers are the same across the Wasatch Front and **Joel Karmazyn** states that the numbers may vary but the proportions will stay the same, with the exception of Salt Lake. The diesel fleet registered in Weber County is 22,631 which accounts for 13% of the fleet. In Weber County 54% of NOx comes from on road vehicles of which 44% of the emissions come from diesel vehicles meaning 13% of the fleet contributes to the NOx. **Bill Self** asks how the numbers are determined. **Mat Carlile** states information comes from the DMV and UDOT and the calculation from the MOVES-14 Model which the EPA developed. He comments they have to use this model when they do their planning. **Joel Karmazyn** states fleet profiles come from the DMV. The modeler for DEQ has made adjustments to the MOVES-14 Model, this model is used by all the Air Planners in all counties. Adjustments are made to simulate conditions that are more to our circumstances. A discussion was held concerning the modeling procedure. **Bill Self** questions if using 2011 data is useful where there has been substantial improvement to diesel. **Mat Carlile** states yes as the emissions standards went into place in 2010 and that diesels contribute a lot of NOx and pollutants into our air compared to gasoline. **Joel Karmazyn** says the average life of a diesel vehicle is 15 years or longer with all that information going into the model. He also states that the data used is from the DMV so it is not speculated. **Kevin Lott** also expresses his concern in using data from 2011. **Mat Carlile** states this is the best information that is available. Going forward the diesels will be cleaner with the assumption they will be operating with those emission controls in place. The main points of the emission program is to ensure the vehicles are operating the way they are supposed to with no problems with the systems. He says that if you look at the controls that are in place for area source and gasoline vehicles, diesel is the only program that is not held accountable. He also states when the 2014 data becomes available they will provide the information to Brian Cowan. **Kevin Lott** states that last year when Davis County made a presentation

concerning their diesel program, they could not prove that it had improved their air quality. **Mat Carlile** states looking at the overall picture, where we were and where we are now, along with any little thing we can do to reduce emissions would benefit the air quality. **Lou Cooper** explains when Davis County gave their presentation it wasn't to show what their program had accomplished. What they did find was diesel vehicles that were tested put out small particulates which they can be harmful to our lungs.

Joel Karmazyn comments there are so many sources that contribute to air pollution, no one solution is going to solve the problem. Concerns were raised about not doing anything. **Veronica French** states it's impossible to pinpoint, but measures need to be taken to correct the problem. Tri-Annual Inventory is used thru out the country for every emission source. The information comes from the DMV, Planners, EPA, and UDOT. **Iain Hueton** states having a visual inspection on diesel vehicles would be a huge incentive not to modify a vehicle. **Joel Karmazyn** states that 3.2 million dollars is spent annually to put rules in place and the overall impact of lowering the inventory of VOC's is 17%. A discussion was held regarding concerns that all sources should be held accountable.

Joel Karmazyn states area source is something that is not a point source, such as commercial, small industry, residential, dry cleaners, restaurants, painters and etc., which means the inventory is massive. Area source inventory distribution is as follows: 62% VOC's, 30% NOx and 8% PM2.5. VOC area source inventory – Solvents: Consumer & Commercial 33.7%; Solvents & Surface Coating – Industrial 35%; Other - 17.5%; Gasoline Transfer 5.8%; Agriculture Livestock Waste – 8%. There are various rules in place to control area sources such as, wood burning devices, gas fireplaces, water heaters, restaurants, etc. as part of PM2.5 State Implementation Plan (SIP).

Joel Karmazyn comments there is an estimated 2,000 EPA Certified wood stoves, and 17,000 Non-EPA Certified wood stoves. Course and fine particles are emitted from wood burning stoves and the EPA regulates the fine PM emitted. The gases HAP's, NOx, Sox, and VOC's from wood burning stoves are not regulated. A discussion was held concerning EPA regulations and standards regarding wood burning stoves. **Joel Karmazyn** also comments there is a large number of fireplaces in Weber County and states they burn an average of a fourth of a cord of wood per year. A discussion was held regarding the various area source contributors.

Mat Carlile states the national ambient air quality standard (NAAQS) for ozone, was recently lowered to 70 parts per billion (ppb) from 75 parts per billion. The EPA is required by the Clean Air Act to review the standards every five years and revise them as necessary. Planning

Timeline was revised in 2015. Currently we are reviewing the data to determine the areas that are recommended for non-attainment which will be submitted to the EPA and they will make an assessment and make a final determination in 2017. We then will write and submit a State Implementation Plan to the EPA, and have them in place by 2021. Ozone is more of a regional issue than a localized issue.

Discussion was held regarding Attainment Schedule by Classification.

Mat Carlile states Ozone is a chemical reaction between NOx and VOC's comes together to create a gaseous pollutant which can be hazardous to our lungs and plant life. The rules that have been implemented for the PM2.5 SIP that are currently in place will co-benefit us with the ozone standards. **Marion Horna** questions if Rocky Mountain Power Company shuts down their Coal Power during the inversion season. **Joel Karmazyn** states no one is currently burning coal along the Wasatch Front during the inversion period including Kennecott. **Veronica French** questions if Refineries, Stericycle and others are regulated. **Joel Karmazyn** states that they are heavily regulated. **Bill Self** asks for an explanation of Tier 3 vehicles and fuel, and **Mat Carlile** states Tier 3 is the next level of standards established for vehicle emissions and fuel quality.

Discussion-Department Air Quality Strategy-

Information only

Brian Bennion/Brian Cowan

Brian Bennion states that it is 'Idle Free Week' in Ogden City and **Lori Buttars** is going to present a video clip that the health department helped develop and is being shown this week. She comments the health department has been partnering with Ogden City for four years and Idle Free Week is this year's campaign. The video is available on Weber-Morgan Health Department's and Ogden City's Face book page.

Brian Bennion comments this past year he has learned a lot about air quality from I/M staff, interacting with the Board of Health, and feedback from the public. The health department just finished a Community Health Assessment in which there are 44 health indicators with one of them is air quality. He passes out an information packet on Health Indicator 43 and a discussion is held on the effects of air quality. He thanks Brandon Bexell and Robert Nunn for their service as Chair and Vice-Chair, and says he looks forward to Robert Nunn and Iain Hueton's leadership and service with this committee. He also expresses his appreciation to the State for their presentation. The current strategy for 2016 includes public education, 'Idle Free' and 'Be Air Aware' campaigns, and addressing both smoking vehicles and wood burning stoves. As a health department we are very supportive of the DAQ on the new rules for water heaters and Tier 3 gasoline which needs to go

through the Legislature. Brian says as a air quality advisory committee and Board of Health we need to be very proactive in promoting these issues. At a local level the next step is what to do about diesel. Is more information needed, see if we can get the 2008 data to compare with 2011. **Rusty Spinden** states diesel testing has been discussed for the last four years. A recommendation for diesel testing was made in 2014 by the Advisory Committee to the Board of Health who asked for more data. **Brian Cowan** states there are timelines to work with as a State Statute says anytime a new emission inspection protocol is suggested it has to be in place by October prior to the year of implementation. The regulation would have to be the regulation adopted by October of 2016 to go into effect in 2017. The Board of Health has to approve to take the regulation through a public hearing process and then back to the Board of Health for approval. A draft would need to be to the Board of Health by July. **Brian Bennion** states he wants everyone to feel like we have done our due diligence to work through this. He proposes a sub-committee get things organized for the April Air Quality Advisory Committee meeting. From there recommendations would then be taken to the Air Quality Work Group to get their feedback before the June Board of Health meeting. A sub-committee was formed with the following individuals: Bill Self, Marion Horna, Kevin Lott, Iain Hueton and Robert Nunn. A meeting will be scheduled at a later date. If committee members have questions they can refer them to **Brian Cowan**. **Dave Holmstrom** thanks everyone for their efforts.

A **MOTION** is made by **Marion Horna** and **SECONDED** by **Jennifer Bodine** to adjourn. The meeting adjourns at 12:10 p.m.

Health Indicator 43 | Air Quality

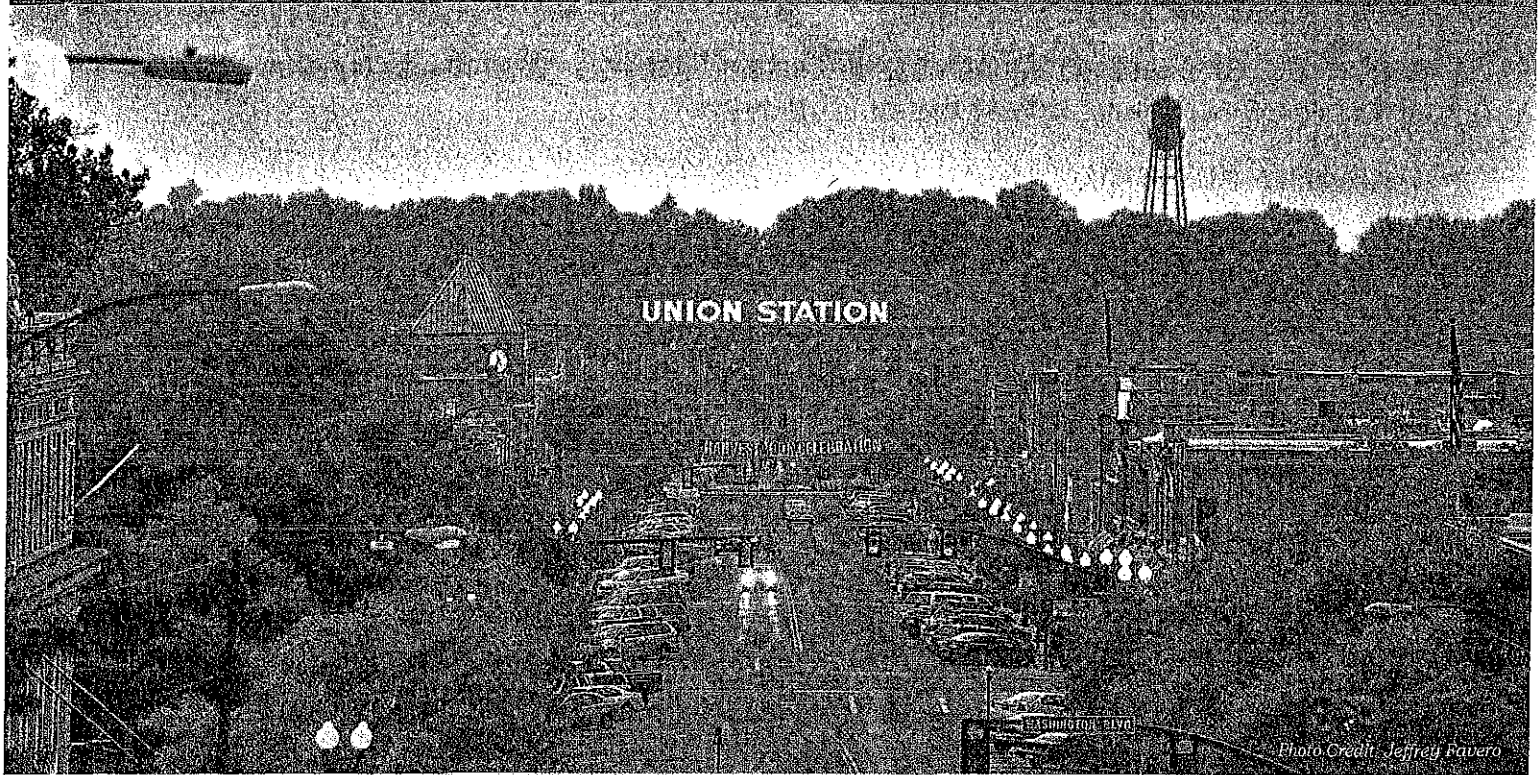
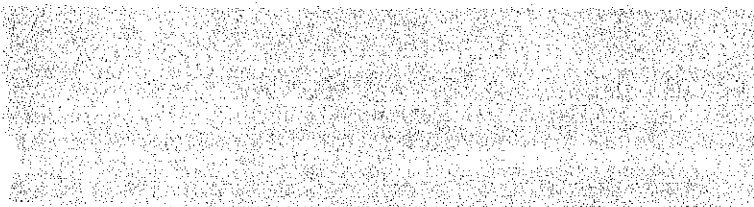


Photo Credit: Jeffrey Favero



ir quality directly impacts everyone's health and quality of life. Poor air quality can cause more:

- ↑ Asthma in children
- ↑ Emphysema and bronchitis
- ↑ Cancer
- ↑ Strokes and heart attacks
- ↑ Hospital admissions
- ↑ Unnecessary non-life threatening emergency room use
- ↑ Premature death^{1, 2, 3}



What Makes the Air Dirty?

The state of Utah and the Environmental Protection Agency (EPA) measure six air pollutants to determine how clean or dirty the air is; They are:

- Particulate Matter (PM)
- Ground level Ozone (O_3)
- Carbon Monoxide (CO)
- Nitrogen Dioxide (NO_2)
- Sulfur Dioxides (SO_2)
- Lead (Pb)

The state of Utah also measures volatile organic compounds (VOC) emissions because they are a precursor for Particulate matter; Particulate matter (PM) is divided into two types: $PM_{2.5}$ and PM_{10} .

$PM_{2.5}$ air pollution is made up of ultrafine pieces of soot and dust measuring 2.5 microns or smaller. $PM_{2.5}$ emissions are concerning to health because they are small enough to embed deeply inside the lungs.^{4, 5}

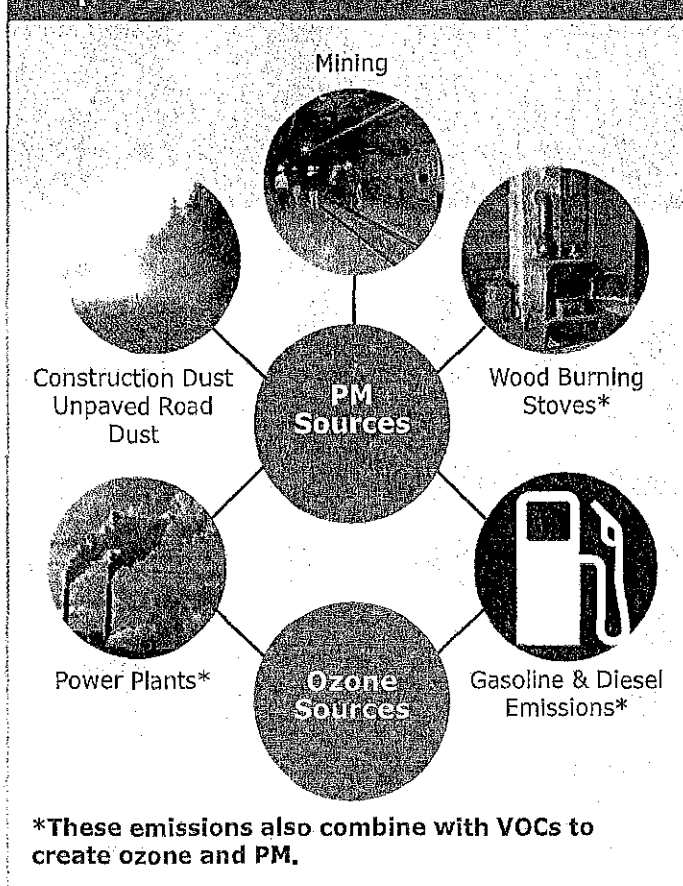
PM_{10} air pollution consists of coarse particles measuring ten to 2.6 microns, which cause many of the same health issues as $PM_{2.5}$, but to a lesser extent.

Ground level ozone pollution is created by VOC emissions interacting with nitrogen emissions that come primarily from:

- Gasoline and diesel vehicle emissions
- Refineries
- Chemical plants^{6, 7}

Ground level ozone combines with other gases and particle pollution to create smog.⁸

Graphic 30: PM and Ozone Sources



Sources: <http://www.epa.gov/pmdesignations/faq.htm#0>,
<http://www.epa.gov/groundlevelozone/>

Of the pollutants measured, ground level ozone and PM constitute the two greatest threats to health.

Source: <http://airnow.gov/index.cfm?action=aqibasics.aqi>

How is Air Quality Reported?

The various pollutants in the air are measured, and depending on the density present, a score is given using the Air Quality Index (AQI); index scores are between 0 and 500, but anything at 100 or below is considered acceptable.⁹ A score 101 or higher is concerning to health.

Table 39: Air Quality Index

AQI Category	Index Value	Meaning of Index Value
Good	0-50	Little to no risk for everyone.
Moderate	51-100	Acceptable, but concerning for the unusually sensitive.
Unhealthy for Sensitive Groups	101-150	General public likely to not be impacted. Sensitive groups, including the old and young, are likely to be affected.
Unhealthy	151-200	Everyone may begin to experience health issues. Sensitive groups experience more serious effects.
Very Unhealthy	201-300	The entire population is more likely to be affected.
Hazardous	301-500	Everyone may begin to experience serious health effects.

Source: <http://airnow.gov/index.cfm?action=aqibasics.aqi>

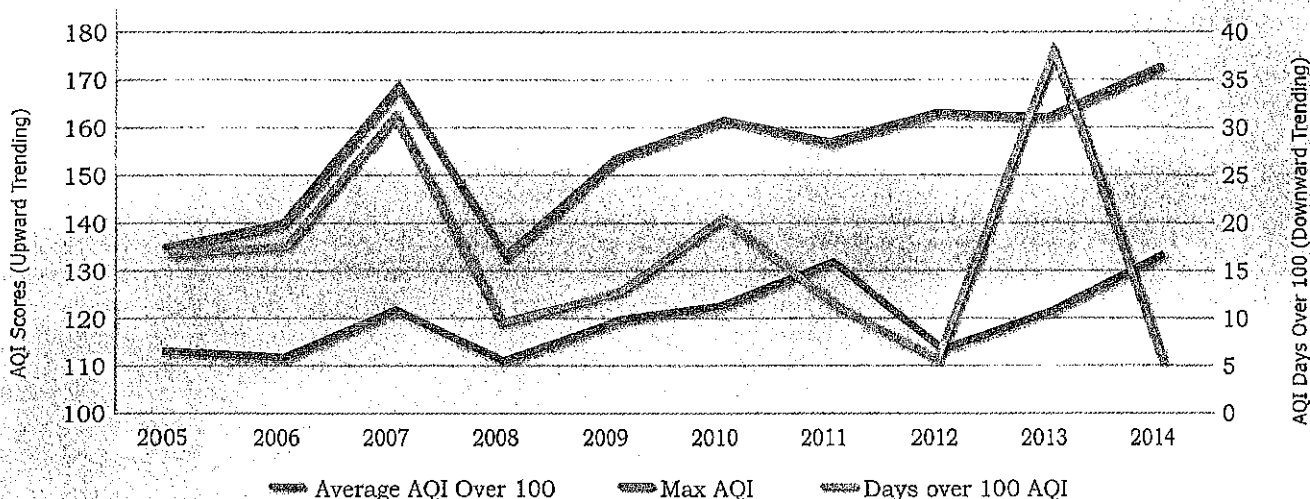
How are We Doing?

The American Lung Association has given Weber County a D score for Ozone, an A F for PM pollution in 24 hour period, and a Pass for our annual PM results.¹⁰ The EPA has classified the lower valley part of Weber County as a nonattainment area (a region not meeting EPA standards on 24 hour pollution levels) for the following:

- PM_{2.5} since 2009
- PM₁₀ since 1995^{11, 12}

Weber County is 0.2 µg/m³ away from exceeding the annual EPA standard of 12 µg/m³ for PM pollution.

Since 2006, the annual number of 100+ AQI days have shown a turbulent, but modest downward trend (Gray Line in Chart 44); this is a favorable trend in air quality. Although that trend is in the right direction, 100+ AQI days are heading toward both a higher average (Blue Line) and maximum AQI (Red Line) each year; these are unfavorable trends in air quality.

Chart 44: Favorable and Unfavorable Trends in Air Quality

Source: <http://www.epa.gov/airdata/>

We should expect fewer days per year with 100+ AQIs, however because 100+ AQI days are trending higher, both in average and maximum AQI, this will likely cause more intense health effects on increasing numbers of the population in the future.

The reduction in 100+ AQI days is a step in the right direction, but it is slightly uncertain whether Weber County will complete HP2020's objective of 10% fewer 100+ AQI days. If all factors remain constant and the downward trend of 100+ AQI days continues, Weber County will complete this HP2020 objective by 2020. See Table 40 for further information on this objective.

Table 40: HP2020 Target Goal 10% Reduction of 100+ AQI*	Target Met?	Current Progress Towards Target
Weber County (2005–08 AQI Baseline)*		61%*
Davis County	✓	386%*
Salt Lake County	✓	221%*
Utah County		36%
United States	✓	383.3%

Source: <http://airnow.gov/index.cfm?action=aqibasics.aqi>, http://www.healthypeople.gov/sites/default/files/HP2020_LHI_Environ_Qual_0.pdf

*Baseline: (2006–2008 population x 100+ AQI days for each respective year)/3, compared to Latest Data: (2012–2014 population x 100+ AQI days for each respective year of the latest data)/3



It is uncertain if the WMHD will achieve HP2020's objective of 10% fewer days with an AQI of 100 or more.

Source: <https://www.healthypeople.gov/2020/topics-objectives/topic/environmental-health/objectives>

Table 41 details the groups in Weber and Morgan counties that are at increased risk for complications caused or compounded by poor air quality:

Table 41: Populations at Risk for Air Quality Related Health Complications

County	Children with Asthma*	Adults with Asthma	Chronic Obstructive Pulmonary Disease	Cardiovascular Disease	Diabetes
Weber	4,288	15,323	6,998	11,195	12,669
Morgan	217	609	296	485	547

Source: <http://www.stateoftheair.org/2015/states/utah/>

*17.2% of childhood asthma is due to exposure to PM_{2.5} air pollution.¹⁴

Air pollution is a contributing factor as to why asthma rates are slightly elevated in the WMHD.

Table 42: Children with Asthma by Area

Local Health District	Children with Asthma
Weber-Morgan	8.5%
Davis	6.6%
Salt Lake	6.8%
Utah	6.2%
State	6.7%
National	9.3%

Source: http://ibis.health.utah.gov/indicator/view_numbers/AsthChiPrev.LHD.html

When is Pollution the Greatest?

Most of our pollution occurs during winter and this is when we exceed the EPA standard for 24-hour emissions of PM_{2.5}. In Utah, during winter, vehicles are responsible for more than 50% of all PM_{2.5} pollution.

The two seasons with the most significant demand for outdoor recreational activities also experience the worst air quality; this may discourage outdoor recreational activities. Likewise, poor air quality will likely impend tourism efforts catering to outdoor enthusiasts.

Factors Contributing to Poor Air Quality

Numerous factors contribute to the air quality in Weber and Morgan counties. Some of these are unavoidable, but many are caused by choice.

Graphic 31: Seasonal Percentages of Total 100+ Days AQI

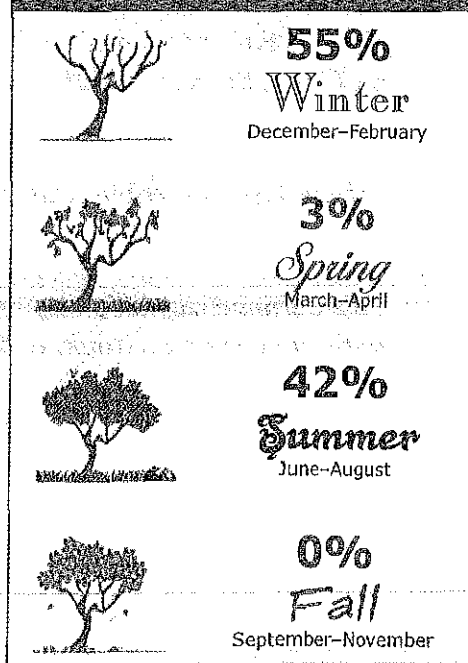


Table 43: Poor Air Quality Contributors

Contributions by Choice	Unavoidable Contributors
Driving solo — 79% of Weber drivers and 82% of drivers in Morgan drive alone to work, compared to 76% of drivers in Utah who drive solo. Top U.S. states enjoy a 71% rate.	Geographically assisted inversion
Wood burning is responsible for 15% of all PM _{2.5} emissions in Weber. In Morgan it contributes to only 2.5% of all PM _{2.5} emissions.	Pollution sources outside of Weber and Morgan counties
Industries not using the best emission reducing technology available.	

Source: http://www.epa.gov/cobin/broker?_service=data&_debug=0&_program=dataprog.state_1.sas&pol=PM25_PRI&stfips=49
<http://www.countyhealthrankings.org/app/utah/2015/measure/factors/67/map>

What are Residents Saying?

Air quality is the number one health concern in Weber County; seven sources of primary data collection confirm this. Data collected by Professor Laura Santurri from Weber State University indicate there is tremendous concern about poor air quality. Residents also feel there is general sense of apathy, low motivation, or unwillingness to sacrifice to fix the air issues.¹⁵

Weber County residents shared the following:^{16, 17}

"We are not as bad as Salt Lake City, but we are getting there."

"Air quality improvement now!!"

"The pollution in our air is hurting our lungs. I have asthma and when the air quality is bad I feel like a fish out of water."

"Air quality is terrible. Customer and diesel trucks polluting air."

"We all need air, let's stop vehicles from blowing dirty clouds as exhaust. I like to drive with the windows down & this is awful tasting."

Community Resources

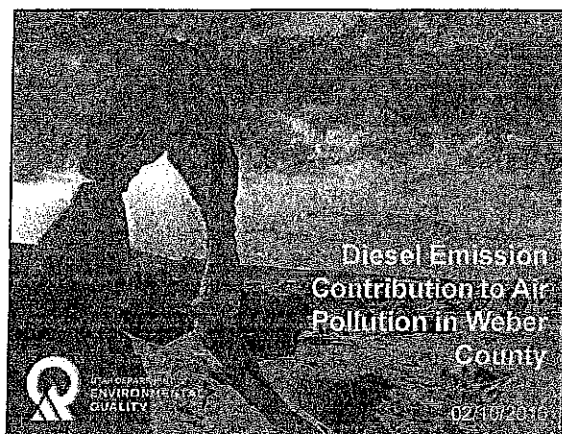
There are many resources in the community to help reduce air pollution. They are:

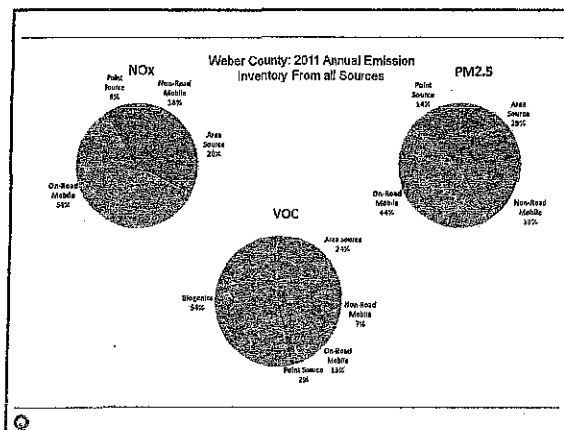
- Public transit
- Community and home gardens; these reduce pollution by decreasing food importing
- Trails and pathways
- Nonprofits, such as Weber Pathways, which encourage the use of trails and pathways, and the Ogden Bicycle Collective that encourages bicycling and places bicycles with low-income families
- Some dedicated bicycle lanes
- Gasoline vehicle emissions enforcement by the WMHD
- UTA rideshare program which helps connect residents with resources to carpool, vanpool, carshare, tele-work and bicycle

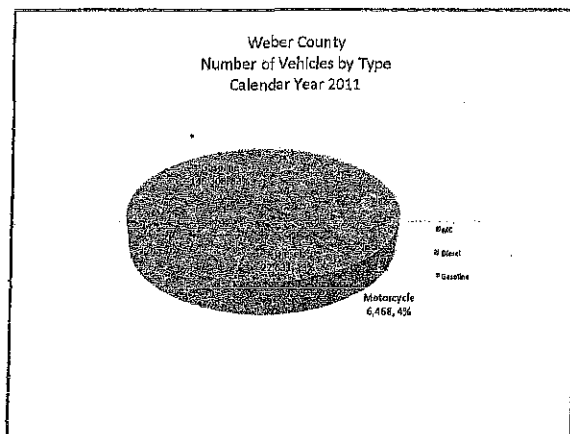
Air Quality Take Away Messages

- Air quality is generally good in Weber and Morgan counties — each year there are only a handful of days in the summer and winter when air quality crosses the 100+ AQI mark.
- Air quality is trending positively in Weber County, although it is not improving as rapidly as it is in Davis and Salt Lake counties.
- For days over 100 AQI, the AQI score is averaging higher and more intense year after year; in plain English — when the air is unhealthy it is getting slightly worse year after year. The good news is that trend patterns indicate fewer days that the air quality will be unhealthy.
- There is no need to panic about air quality in Weber or Morgan counties, because generally the air quality is good most of the year.
- Weber County's population is growing at a modest rate and we should remain concerned about its impact on our air quality.

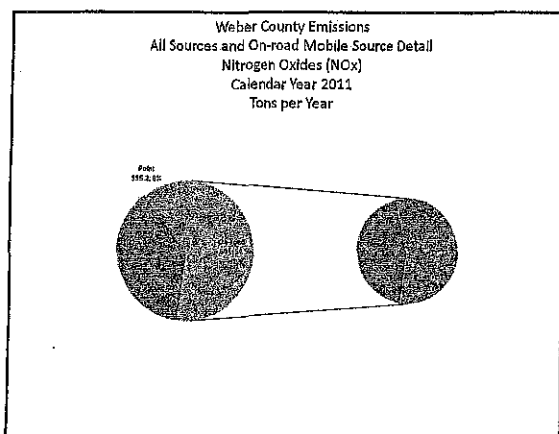
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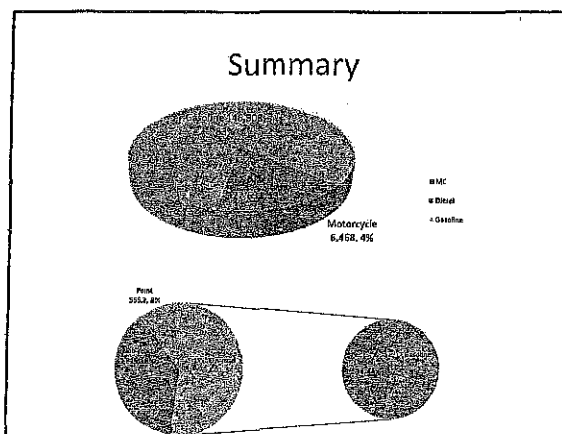






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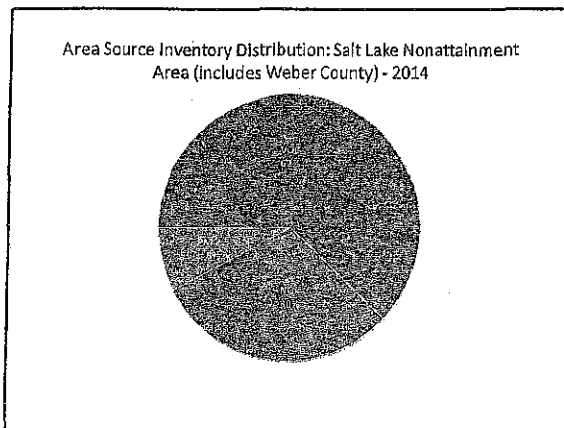


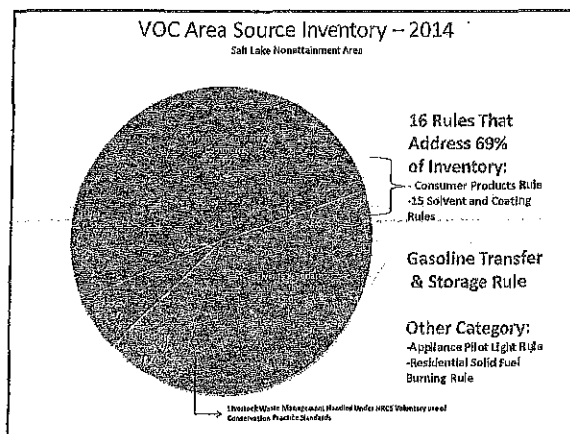


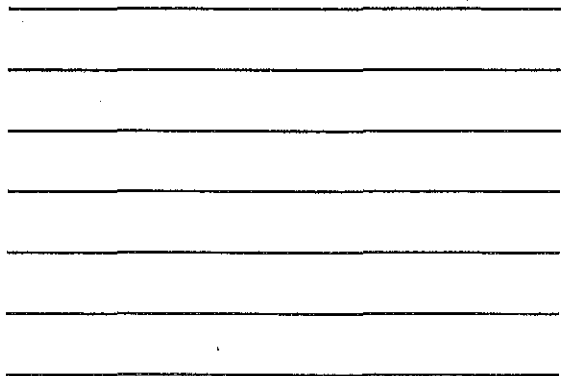
Questions

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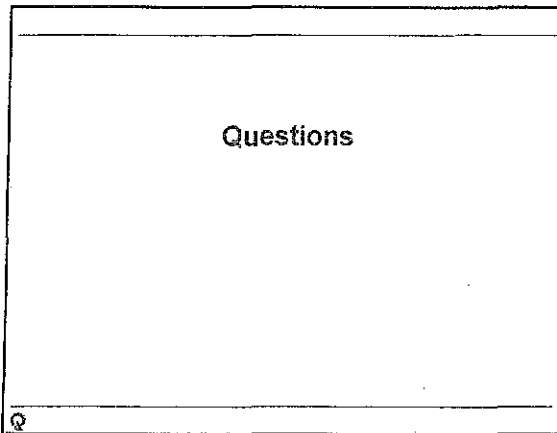


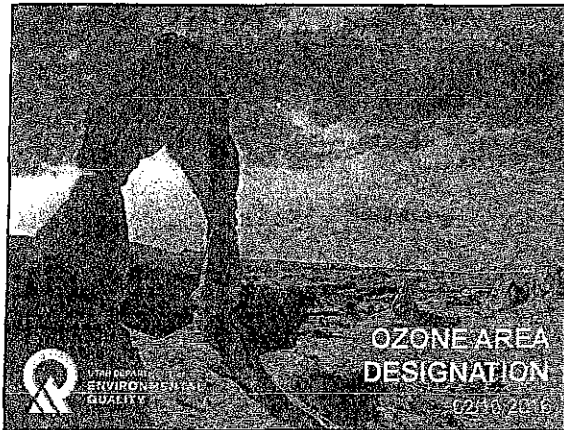


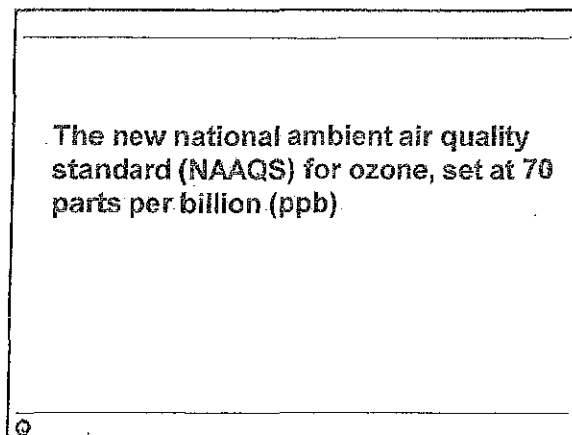


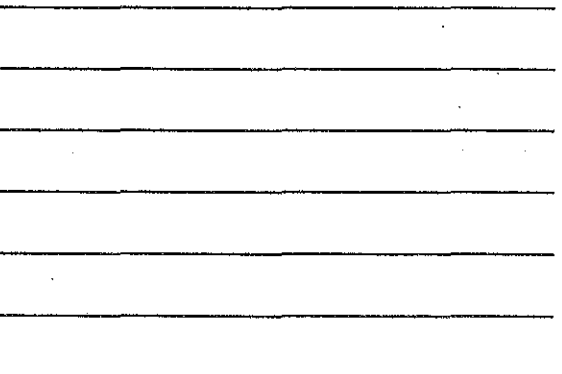
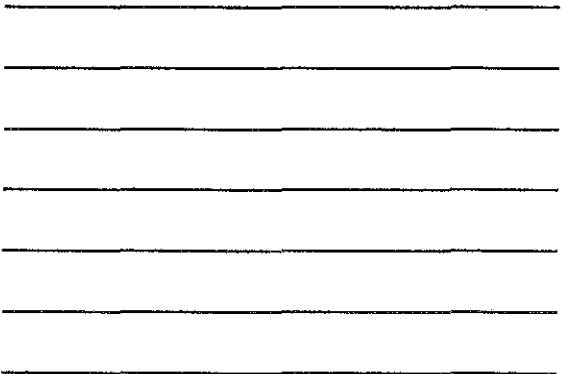
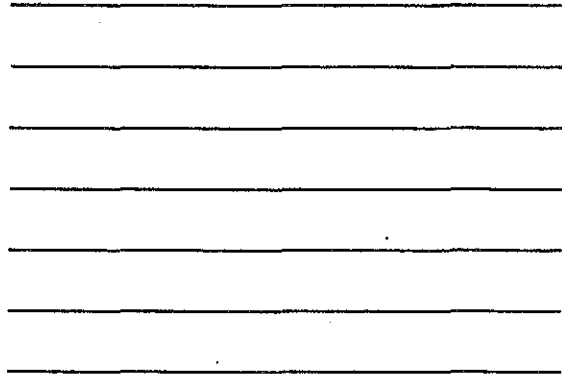


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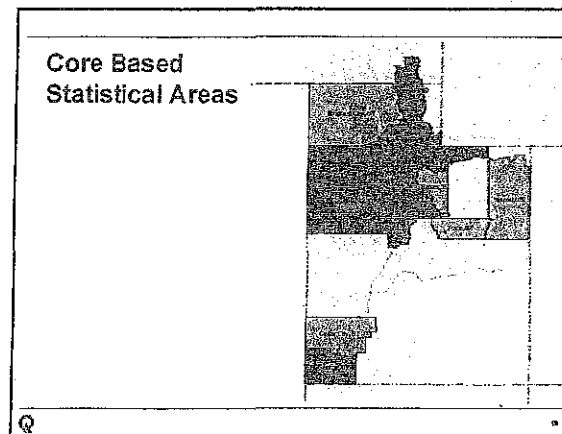








2/9/2016



Area Designation Factors to Consider

- Air Quality Data
- Emissions and Emissions Related Data
- Meteorology
- Geography and Topography
- Jurisdictional Boundaries

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Ozone Attainment

- The CAA requires areas to be designated based on the severity of the problem
- Areas closer to the standard have fewer mandatory requirements, but must attain the standard more quickly
- If an area does not attain the standard it is bumped up to the next higher classification level

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2/9/2016

Area Classification Thresholds			
Area Classification	2015 Standard*	2015 Standard*	
		From	Up to but not including
Marginal	71	71	81
Moderate	81	81	93
Severe	93	93	105
Extreme	105	105	163
		equal to or above	163

*Not the final implementation rule. These are estimates based on assumptions from the 1997 and 2006 across WAQS.

Attainment Schedule by Classification	
Classification	Years to Attainment from Date of Classification
Marginal	3 years
Moderate	6 years
Serious	9 years
Severe	15 to 17 years
Extreme	20 years

Questions